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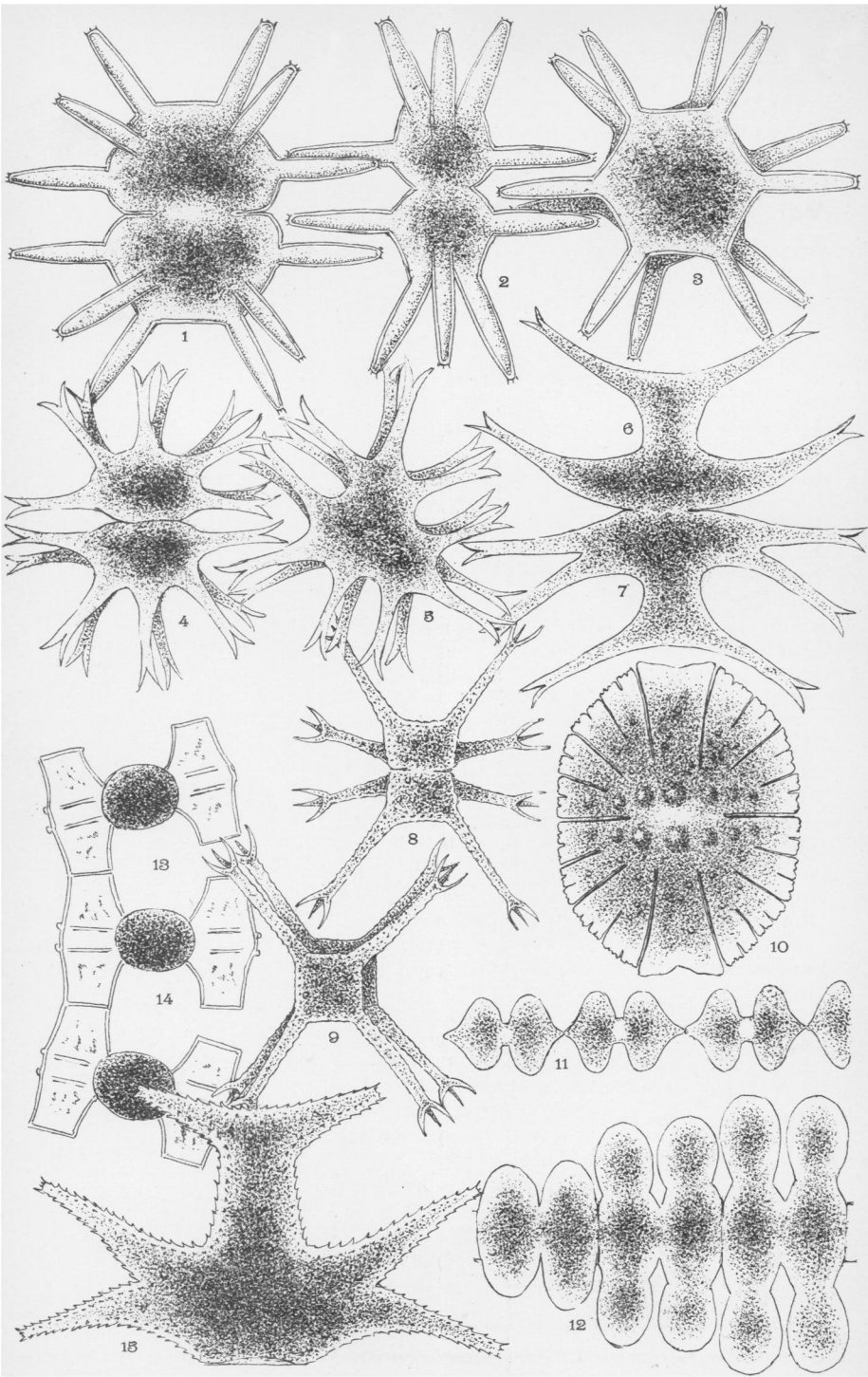
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NEW DESMIDS OF THE UNITED STATES.

can have no hesitation in adopting the terms "early stuck together" instead of "monophyllous in the early stages," if that will make the idea clearer, for it was precisely my object to show that the term monophyllous as applied to the pine was simply a case of the "early sticking together" of the leaves of the plant.

THOMAS MEEHAN.

To Botanists.—I have published a Catalogue or Check-List of the Phænogamous and Vascular Cryptogamous Plants of North America, containing the names of nearly 10,000 species. It is, so far as I know, the most complete list ever published of the plants of this country. It contains 112 pages, and will be found of the utmost utility as an auxiliary to the successful arrangement of a herbarium, and invaluable for making exchanges.

Paola, Kansas.

J. H. OYSTER.

Botanical Notes.

Systematic Position of the Bacteria.—In a Review of recent works on bacteria, Dr. C. Fisch (*Biolog. Centrabl.* v., pp. 97-102) shows that the assignment of the Schizomycetes to the fungi does not rest upon a sound morphological basis, the physiological resemblance in the absence of chlorophyll not being sufficient of itself to show a genetic affinity. The history of development furnishes conclusive evidence against the Schizomycetes being connected with the fungi phylogenetically, either as an early form of development or as the result of retrogression. The nearest affinity of the bacteria lies unquestionably with certain green organisms, *Nostoc*, *Oscillaria*, etc., included under the Schizophyceæ or Cyanophyceæ; and these form together a natural group of Schizophyceæ, with no close affinity to any group of fungi. According to our present state of knowledge, the Schizophyta must be regarded as displaying the nearest genetic affinity with the Flagellata.—*Journ. Royal Microscop. Soc.*

The Filmy Ferns of Jamaica.—Under this title, Mr. J. H. Hart has contributed to the *West Indian Field* an interesting article to which he appends a list of all the *Trichomanes* and *Hymenophylla* known to inhabit the island of Jamaica—22 species of the former and 13 of the latter.

Forestry Statistics.—At the American Forestry Congress, recently in session in Boston, some very valuable statistics were presented relative to the timber supply of this country. The land area of the United States is placed at 1,856,070,400 acres; total forest area, 440,990,000 acres; total farm area, 295,650,000 acres. Of unimproved and waste lands, including "old fields," there are 1,115,430,400 acres. There are 150,000 miles of railway, including side tracks. It has required 396,000,000 ties for their construction. Supposing that the ties require to be renewed once in six years, and that 10,000 miles of new road are built annually; if twenty-five years be allowed as the time necessary for trees to attain a size suitable for making ties, then it would require 15,000,000 acres of standing timber to supply the annual demand for them. But with the increase of railroads, it is to be considered that the annual demand for ties is all the while increasing.